

FAR E

495
.L37

Smithsonian Gallery of Art
Washington, D. C.

T'OUNG-PAO.

Tirage à part.

MÉLANGES.

THREE TOKHARIAN BAGATELLES.

1. A Chinese Loan-Word in Tokharian A.

The word for "town" in the Indo-European language designated as Tokharian A is *rī*, with short or long vowel, capable of forming a plural *rī-s*. The word was pointed out by the first decipherers of the language, E. SIEG and W. SIEGLING.¹ EMIL SMITH, in his very interesting analysis of the Tokharian vocabulary,² has justly observed that the word *rī* cannot satisfactorily be explained as coming from any Indo-European language, and that the alternative form with the lengthening of the vowel might speak in favor of a foreign origin,

¹ *Tocharisch, die Sprache der Indoskythen* (S.B.A.W., 1908, p. 923). I do not agree with these authors in regarding the language as that of the Indo-Scythians, but side with the conservative views expressed on the subject by A. MEILLET (*Le Tokharien, Indogerm. Jahrbuch*, Vol. I, pp. 1—19). The ingenious supposition of F. W. K. MÜLLER (S.B.A.W., 1907, p. 960) still lacks the precise documentary evidence. The mere attestation of the fact that an Uigur colophon mentions the translation of a Buddhist work from an Indian language into Tokharian does not yet prove substantially that the fragments now styled Tokharian by way of convention really belong to that language, although this possibility may be admitted. The fact itself, that Buddhism and Buddhist literature existed among the Tokharians, certainly was not novel, but previously known. Tāranātha has preserved to us the names of four members of the Buddhist clergy in Tukhāra (Tibetan T'o-gar; with popular etymology also T'o-dkar; *dkar*, "white"), — viz., Ghoshaka; the Vaibhāshika teacher Vāmana (Tibetan Mia-t'uñ, "dwarf;" mentioned also in *dPag bsam ljon bzan*, p. 88); the ācārya Vibhājyavāda; and Dharmamitra, a teacher of the Vinaya (pp. 61, 78, 198 of the translation of SCHIEFNER), — and he twice refers to the Buddhism of Tukhāra (*ibid.*, pp. 38, 282). According to the Index of the Kanjur (ed. I. J. SCHMIDT, p. 78, No. 513), the original text of the Ārya-pratītya-samutpāda-hṛdaya-vidhi-dhārāṇī, from which the Tibetan translation was made, had been procured from Tukhāra by the Bhikṣu Ner-ban (Nirvāṇa?)-rakshita.

² "*Tocharisch*" *die neuentdeckte indogerm. Sprache Mittelasien* (*Videnskabs-Selskabets skrifter*, 1910, No. 5, p. 15, Christiania, 1911).

as the long vowels, with the exception of *a*, rarely or hardly ever occur. Smith tentatively proposed a relationship of the Tokharian word to Tibetan *ris* ("quarter"), remarking that *ri* is the present and probably very ancient pronunciation of the latter. Without discussing the possibility of a contact between Tokharian and Tibetan, this suggestion is not convincing for two main reasons. The Tibetans are an essentially nomadic group of tribes, to which the notion of a town in its origin was entirely foreign; and it may be considered as certain that at the time when the Tokharian word was in existence the Tibetans had only a few towns. The T'ang History relates that the inhabitants of Tibet roam about tending their herds, without having fixed settlements, while there are but a few walled places (其人或隨畜牧而不常厥居然頗有城郭, *Kiu T'ang shu*, Ch. 196 A, p. 1 b). The Tibetan designation for a settlement of any size, though it consist of a single or several habitations, is *groñ* (written language also *groñ-k'yer*), but the word *ris* is never applied in this sense. It is even very far from signifying "quarter" unceremoniously, but means "part, division," usually in a figurative, not in a strictly territorial sense, and as a rule appears only as the second element of a compound. It therefore seems to me that the Tokharian word *ri* has no chance to claim its derivation from Tibetan *ris*. If, however, the former should really be a loan-word, it would appear more probable and reasonable to look to Chinese for assistance and to correlate the Tokharian word with Chinese 里 (Korean and Japanese *ri*), "a village comprising twenty-five or fifty families." The Chinese, as energetic colonizers in Central Asia, may well have exerted their influence upon the native population there in this direction.

This word thus far is the only Chinese loan-word discoverable in Tokharian; in going over its vocabulary at least I could find no others. As has justly been said by A. MEILLET,¹ "Le tokharien n'est pas de ces langues qui sont fortement sujettes à l'emprunt; le vocabulaire est indigène pour la plus grande partie, autant qu'on puisse le voir par les faits déjà connus."

2. A Tokharian Loan-Word in Chinese.

The earliest (and still common) Chinese designation of *asafoetida*,² 阿魏 (Japanese *agi*), traced by HIRTH to the Annals of the Sui Dynasty,³ in which it is mentioned as a product of the Kingdom of Ts'ao 漕, has not yet been explained. Hirth observes that "*a-wei* is a foreign word, derived

¹ *Mémoires de la Société de linguistique de Paris*, Vol. XVII, 1912, p. 292.

² Belonging to the genus *Ferula*, comprising some sixty species (see WATT, *Dictionary of the Economic Products of India*, Vol. III, pp. 328—337).

³ HIRTH and ROCKHILL, *Chau Ju-kua*, p. 225. The same text is also in *Pei shi*.

presumably from the Sanskrit or Persian name of the drug." This supposition, at the outset, is not very probable, as the Sanskrit and Persian terms have been traced in Chinese, and are indeed supplied by Hirth himself: Sanskrit *hingū* is handed down in the Chinese transcriptions *hing-kū* (**hing-gu*) 興瞿, *hing-yü* (*hing-nü*) 形虞, and *hün-k'ü* (**hün-gü*) 薰渠,¹ and Persian *anguza(d)* انگزد or انگزه, in Chinese *a-yü* (-*tsie*) (**a-nü-zi*) 阿虞(截).² Watters says with reference to the *Pên ts'ao kang mu* that *a-wei* is wrongly given as the Brāhman or Sanskrit name. This statement, however, is not made by Li Shi-chên, the author of the *Pên ts'ao* (Ch. 34, p. 21). Whereas he expressly notes that *a-yü* is a Persian term, and that *hing-yü* is a word used in India, he fails to state from what language the word *a-wei* is derived. He indicates that it makes its first appearance in the *Pên ts'ao* of the T'ang period, and treats us to a wonderful etymology of the name: "The barbarians themselves style it *a*, expressing by this exclamation their horror at the abominable odor of this gum-resin."³ This is sufficient to warrant the conclusion that Li Shi-chên was ignorant of the language from which the word had sprung. He further imparts a Mongol word *ha-si-ni* 哈昔泥,⁴ and, what is more important, another transcription *yang-kuei* 央匱, not mentioned by Hirth or Watters. The Nirvāṇasūtra (*Yen p'an king* 涅槃經) is cited by him as the source for this word, and apparently the Mahāparinirvāṇasūtra is understood.⁵ *Yang-kuei*, in my opinion, is the same as *a-wei*; that is to say, the two are variants, representing transcriptions of an identical foreign prototype. This one we encounter in Tokharian B *aṅkwa*, first pointed out in the plural form *aṅkwaś* by M. S. LÉVI from one of the documents of

¹ HIRTH, *l. c.*, and *J.A.O.S.*, 1910, p. 18; WATTERS, *Essays on the Chinese Language*, p. 440.

² Also the Sanskrit loan-word *hiṇ* occurs in Persian (L. LECLERC, *Traité des simples*, Vol. I, p. 448). The Tibetan equivalent *šin-kun* must be explained from **sin-kun* (assimilated to *šin* by way of popular etymology: *šin*, "tree"), the latter from **hin-kun* (= Sanskrit *hingū*), derived from a mediæval vernacular of India.

³ 夷人自稱曰阿此物極臭阿之所畏也 (*wei* 畏, pun upon *wei* 魏).

⁴ This word is not listed in the Mongol dictionaries of Kovalevski and Golstunski. It is nothing but a transcription of Ghazni or Ghazna 霍烏悉那, the capital of Zābulistān (CHAVANNES, *Documents*, p. 160), which, according to Hsüan Tsang, was the habitat of the plant (HIRTH, *l. c.*). According to I-tsing (TAKAKUSU's translation, p. 128), asafoetida was abundant in the western portion of India.

⁵ This entire foreign nomenclature is ascribed to a poem of Fan Ch'êng-ta 范成大 (1126—93) in K'ang-hi's Dictionary (under 魏香).

medical contents secured by the Mission Pelliot.¹ The element *yañ* 央, as is known, represents the syllable *añ* in the Chinese transcription of Sanskrit words; for instance, in *Aṅgulimālya*. *Kuei* 匱 is North Chinese, as compared with an older articulation *kwai* or *kyai*, as still preserved in Cantonese; so that *yang-kuei* 央匱, read in the T'ang period *añ-kwai*, is a phonetically exact transcription of a word corresponding to Tokharian *añkwa*. The same holds good for the transcription *a-wei*: *a* 阿 answers to Sanskrit *a* in the method of Buddhist transcriptions; the character *wei* 魏, as far as I know, has not yet been pointed out among the latter, but it had the ancient pronunciation *kwai* (鬼), *gwai*, and *ñwai*, also *ñui*. In this manner, also this mode of transcription leads back to Tokharian *añkwa*. From a phonetic point of view it is interesting to note that the pair *yang-kuei*—*a-wei* meets with an analogous counterpart in the name of the fig (*Ficus carica*) discussed by HIRTH,² *ying-ji* (**añ-it*) 映日 and *a-yi* (**a-jit*) 阿驛, both answering to a West-Asiatic name of the general type *anjir*; also in this case we have a double mode of transcription following similar lines, as in the previous instance, — the nasal after the initial vowel being expressed in the one form and omitted in the other, — so that we are entitled to the conclusion that the element *a* 阿 served also for the reproduction of the initial syllable *añ* or *an* in foreign words during the T'ang period.

Another Tokharian term of botanical pharmacology is of great interest to us. This is *arirāk*, the designation of the myrobalan *Terminalia chebula*.³ First of all, we receive from it a satisfactory clew as to the mysterious Tibetan name *a-ru-ra* (corresponding in meaning to Sanskrit *haritakī*),⁴ which comes nearer to the Tokharian form than to any form of other languages known to us. Second, new light falls upon the Chinese transcription *ha-li-lo* 訶梨勒, first mentioned at the end of the third century in the *Nan fang ts'ao mu chuang*.⁵ This word has been brought together with Arabic *halīlag* هليلج by T. WATTERS,⁶ and with Aramaic *halīlag* הלילג by HIRTH.⁷ Persian *halīlah* هليله, also *batīl* and *batīla*, should be added. As the genus

¹ *Journal asiatique*, 1911, Juillet-Août, p. 138.

² *J.A.O.S.*, 1910, p. 20.

³ S. LÉVI, *l. c.*, p. 122.

⁴ H. LAUFER, *Beitr. tibet. Med.*, pp. 56—67. GARCIA AB HORTO (*Aromatum Historia*, 1567, p. 132) gives as Indian popular name *arare*, and as medical term *aritiqūi*. Compare the Anglo-Indian word *hara-nut*. *Haritakī* is transcribed in Chinese 訶梨恒雞. In Newārī the name of the plant is *halala*.

⁵ See BRETSCHNEIDER, *Bot. Sin.*, pt. 1, p. 38.

⁶ *Essays on the Chinese Language*, p. 355.

⁷ *J.A.O.S.*, 1910, p. 23.

Terminalia is indigenous to India, however,¹ it is manifest that the West-Asiatic names, in the same manner as the Chinese and Tibetan ones, are derived from a language of India, and that there is no necessity of resorting to Persian, Aramaic, or Arabic for an explanation of the Chinese name. The Tokharian form *arirāk* demonstrates that the prototype on which the derivations of West-Asiatic, Chinese, and Tibetan are based, indeed pre-existed somewhere on Indian soil. Chinese *-li-lo* answers to an ancient articulation *-li-lak* (*-ri-rak*), and very exactly reproduces Tokharian *-rirak*. The correctness of this point of view is corroborated by the word *p^{si}-li-lo* 毗黎勒, corresponding to Sanskrit *vibhītaka* and to Tibetan *ba-ru-ra* (*Terminalia belerica*). Again in this case the Chinese and Tibetan forms are not actually based on Sanskrit *vibhītaka*, with which they have only the first element in common; while *li-lo* (*ri-rak*) and *ru-ra* appear as the second element in the same fashion as in the type *ho-li-lo—a-ru-ra*. Consequently the Chinese and Tibetan forms allow us to presuppose the former existence of an Indo-Tokharian form **virirāk*, from which the two were derived, and which corresponded in sense to Sanskrit *vibhītaka*. The Tokharian term *trphal* (Sanskrit *triphalā*, the “three myrobalans”)³ shows that a name for this kind of myrobalan must have been known.

3. Tuman.

It is well known that in New Persian a word occurs for the designation of a “myriad,” *tumān* or *tomān* تومان, which with insignificant phonetic modifications, is found also in the Turkish, Mongol, and Tungusian languages of inner Asia, and which passed, most probably from Turkish, also into Magyar (*tömény*, *témény*, *twmen*; usually in the combination *tömény-ezer*, “myriad, many thousands;” *töméntelen*, “innumerable”).⁴ Whereas this word in popular use refers to an indefinite high number, the figure *x*, the supposition is

¹ The tree is abundant in northern India from Kumaon to Bengal and southward to the Deccan tablelands, and is found also in Ceylon, Burma, and the Malay Peninsula (see WATT, *l. c.*, Vol. VI, pt. 4, pp. 24—36). In Ibn al-Baitār we meet the term “myrobalan of Kabul” الهليلج الكابلي (L. LECLERC, *Traité des simples*, Vol. I, p. 131); hence our “chebuli” (YULE and BURNELL, *Hobson-Jobson*, p. 136).

² *Pén ts'ao kang mu*, Ch. 31, p. 4. It is first mentioned under the T'ang by Su Kung 蘇恭 and Li Sün 李珣.

³ S. LÉVI, *l. c.*, p. 126.

⁴ Compare Z. GOMBOCZ, *Die bulgarisch-türkischen Lehnwörter in der ungarischen Sprache*, p. 131 (*Mémoires de la Société finno-ougrienne*, Vol. XXX, Helsingfors, 1912). Gombocz, while pointing out the analogous Mongol, Turkish, and Tungusian forms, omits reference to Persian.

granted that in more exact manner of speech it should convey the notion of „ten thousand.” Marco Polo, who spoke the Persian language, is our witness of the fact that in his day *toman*, as he writes, covered this numerical category.¹ This is confirmed by the *Yüan ch'ao pi shi* 元朝秘史 (Ch. 12. p. 45, ed. of Li Wên-t'ien 李文田), where the word appears in the two transcriptions *t'u-mien* 禿綿 (*tümän*) and *t'u-man* 土滿 (*tuman*), both being said to be identical, and explained as the Mongol word expressing the numeral “ten thousand” (譯言萬數也) and also an indefinite quantity (猶言眾耳). The *Niüci* vocabulary contained in the Ming edition of the *Hua i yi yü* likewise transcribes the *Niüci* word *tuman* by means of the Chinese characters 土滿.² The farther removed from the original centre of its propagation, the more was it liable, naturally, to assume the air of a fantastic aggrandizement. When, in the summer of 1898, I was engaged in the study of two Tungusian dialects, Ewunki and Orochon, in the village Wal on the north-east coast of Sachalin Island, one of my Tungusian informants gave as the highest number known to him *tumä'*, and translated it into Russian by “million.”³

Various opinions have been expressed in explanation of the word in question. H. YULE⁴ has taken it for granted that it is a Mongol word. The striking fact could not escape the students of Altaic languages that, while the cardinal numbers from 1 to 10 are different in Turkish, Mongol, and Tungusian, a curious coincidence prevails in the designations for “thousand” (Turkish

¹ Ed. of YULE and CORDIER, Vol. II, p. 192.

² W. GRUBE, *Sprache und Schrift der Jučen*, p. 35, No. 665. T. WATTERS (*Essays on the Chinese Language*, p. 360) gives also the transcription *t'u-mén* 圖們.

³ This is the easternmost region to which the word has advanced. It is notable that it has been adopted only by Ural-Altaic, but not by any Palae-Asiatic languages. The Yukaghir, for instance, have no words for numbers above a hundred, and used to express a hundred by “ten tens,” while they now employ *ičtoχ* (from Russian *sto*) and also the Russian word for “thousand” in the form *tičeče* (W. JOCHELSON, *Grammar of the Yukaghir Language*, p. 115).

⁴ *Hobson-Jobson*, p. 928. Yule (*ibid.*) has asserted also that *toman* or *tomaun*, in the sense of a certain coin or a certain sum of money (in Persia equal to ten šābqrāns or crans, about 9.75 fr.; in India equal to \$ 15.50 [G. TEMPLE, *Glossary of Indian Terms*, p. 262]; among the Ossetians equal to 10.10 Rubels [W. MILLER, *Sprache der Osseten*, p. 109]; among the Turks equal to 3 Rubels [RADLOFF, *Wörterbuch*, Vol. III, col. 1518]), is identical with the word *tuman* (“myriad”). On the authority of Yule, this has passed into our lexicography (for example, into the *Century Dictionary*). The number “ten thousand” is not visible in any of the instances given; and, in my opinion, the word in question is entirely distinct from the numeral *tuman*, and is derived from another root with a history of its own.

myñ, byñ, biñ; Mongol *miñgan*; Tungusian *miñan*) and "ten thousand" (Codex cumanicus *tumen*; Old Chuvash *tümän*; Orkhon inscriptions and Uigur *tümän*; Djagatai *tömän* تومان; ¹ Osmanli *tuman*; Mongol *tümän* [Old Mongol, also *tuman*]; Niüči *tuman*; Manchu *tumen*; Tungusian dialects *tumó, túmo, tumé, tumén*; Gold *tuma, tymú*). This state of affairs must naturally raise the suspicion that these two numeral series cannot be invoked as witnesses of linguistic relationship; that, on the contrary, they are derived from a foreign source. For this reason, W. SCHOTT² and J. HALÉVY,³ the two scholars who thus far have discussed the numerals of this group in the most ingenious manner,⁴ have advisedly passed over the series *tuman* in silence, actuated as they were by a correct feeling that the question is of a loan-word. G. J. RAMSTEDT, in a study of the numerals of the Altaic languages,⁵ justly observed that the word, both in Tungusian and in Turkish, is suspicious of a late derivation; but, although referring to Russian тъма and темникъ, yet he thought that the original might perhaps be sought for in Indo-Chinese, pointing to Chinese *wan, man* ("ten thousand") and *ti-man* ("the ten-thousandth"). This unfortunate idea was accepted by Z. GOMBOCZ (*l. c.*) who, like Ramstedt, overlooked the existence of the corresponding Persian word. Long before the discovery of Tokharian there was no doubt in my mind that *tuman* is neither Turkish nor Mongol (and least of all Chinese), but Indo-European: the Persian word and the interesting Slavic forms were sufficient to justify this opinion. M. E. BLOCHET, in a very interesting notice *Le nom des Turks dans l'Avesta*,⁶ makes an incidental reference to the word *tumän*, stating that "it is a very ancient borrowing from the Chinese *to-man* 多萬 ('the ten thousand')." ⁷ I venture to doubt that a combination like this ever had any real existence in Chinese: it is not registered in the *P'ei wên yün fu* (Ch. 73); the notion "several or many myriads" is usually expressed by *shou wan* 數萬. The

¹ J. KUNOS, in his edition of Suleiman Efendi's Djagatai-Osmanli Dictionary (p. 196), transcribes *tuman*.

² *Das Zahlwort in der tschudischen Sprachenklasse* (*Abh. B. Ak. W.*, 1853, pp. 1—29).

³ *L'étroite parenté des noms de nombre turco-ougriens* (*Keleti szemle*, Vol. II, 1901, pp. 5—18, 91—108).

⁴ Despite the sweeping criticism of G. J. RAMSTEDT (*Journ. de la Soc. finno-ougrienne*, Vol. XXIV, 1907, p. 2), who, as far as tangible results are concerned, has not advanced much beyond his predecessors.

⁵ *L. c.*, p. 22.

⁶ *J.R.A.S.*, 1915, p. 307.

⁷ The opinion of M. Blochet is not quite clear to me. According to him, *tumän* is the older and original form (and this is also my opinion), and Persian *tumän* is intended to transcribe the Altaic word. What I do not comprehend is whether, in M. Blochet's view, the Persians or the Turks adopted the loan from the Chinese.

ancient pronunciation of *wan* was **ban*, and a Chinese *to-wan* borrowed by Turks during or before the T'ang period would have resulted in **doban* or **duban*; whereas an ancient Turkish or Mongol *tu* or *tü*, according to the phonetic rules of transcription, would always presuppose an initial aspirate on the part of modern (that is, post-T'ang) Chinese.¹ It is not necessary, however, to expatiate on this side of the argument; in the case of borrowings we have to look for motivation which is entirely lacking, and which is not produced by the supporters of the Chinese theory.

I had expected that A. MEILLET's conclusive study of the Tokharian numerals² had indeed brought us the ultimate solution of the principal issue of the problem, which in my opinion should be acceptable to all. M. MEILLET points out the numeral "ten thousand" (*tmām* in Tokharian A, and *tumane*, *tmāne* in Tokharian B), and discusses at length the Indo-European character of this word.³ He strongly fortifies his opinion with an excellent etymology based on the comparative study of Indo-European philology, and emphasizes Persian *tumān* and Slavic *tŭma*. It should be added that Tokharian A *tmām* phonetically is on the same level as Russian *tma* (тъма or тма), which appears as early as the time of the Slavic-Church language and Old Russian. There are, further, the following derivatives: *t'emnik* (темникъ) and *tmo-načalnik* (тмоначальникъ), "commander of ten thousand;" *t'movyi* (тьмовый), "relative to ten thousand;" *tmoritseyu* (тморицею) and *tmorično* (тморично), "many times, incessantly;" *tmoričnyi* (тморичный), *tmotmužči* (тмотмужий), and *tmo-t'omnyi* (тмотёмный), "innumerable."⁴ This fact bears out the close relationship of Tokharian to Slavic insisted upon by M. MEILLET, and positively uproots the idea that the Tokharian and Slavic words have been borrowed from Turkish. The word (this fact is now well assured) is of Indo-European origin; and the Turkish word owes its existence to an Indo-European language, not *vice versâ*. It should certainly be borne in mind that *tuman* belongs to the medial, not the ancient, stage of Indo-European speech-development (in regard to Tokharian M. MEILLET observes, "C'est une langue de type indo-européen moyen, et non pas du type ancien"), and that the documentary evidence thus far available

¹ Compare, as regards this particular case, the above Chinese transcriptions *t'u-mien* and *t'u-man*.

² *Les noms de nombre en Tokharien B* (*Mémoires de la Société de linguistique de Paris*, Vol. XVII, 1912, pp. 281—294).

³ *L. c.*, pp. 292, 293; and *Le Tokharien* (*Indogerman. Jahrbuch*, Vol. I, p. 19).

⁴ VLADIMIR DAL, Толковый словарь живого великорусского языка, Vol. IV, col. 767, 773, 887. The Russian word was formerly derived from Turkish by H. YULE (*Hobson-Jobson*, p. 929), and recently by ГОМБОЦ (*l. c.*). Yule pointed to Herberstein, who about 1559 reported that "one thousand in the language of the people is called *tissutze* (тысяча): likewise ten thousand in a single word *tma*."

strictly points to mediæval times.¹ In view of Avestan *baēvar*, Pahlavī and Persian *bēvar* ("ten thousand"), it would be interesting to have some more exact chronological indications as to the time when *tuman* springs up in Persian literature.

While I perfectly concur with M. Meillet in regarding *tuman* and its congeners as Indo-European, I venture to dissent from him in the opinion that the Turkish forms are derived from Tokharian: I am rather disposed to think that they hail straight from Persian. Phonetically, the Turkish, Mongol, and Tungusian forms are decidedly based on Persian *tumān* or *tomān*, while none of those languages exhibits a final *e* like Tokharian B *tumane*, and still less a contracted form like Tokharian B *tmāne* or Tokharian A *tmām*. There is, however, a still more weighty, culture-historical reason why the word in the languages of inner Asia should be traced to Persia as its home. The scholars hitherto engaged in the discussion of this question argued it only from the philological point of view, without accounting for the reasons of the wide expansion of the word, embracing the territory from the Baltic, the Danube, and the Black Sea as far as the north-eastern Pacific. The matter is concerned with the military history of Asia. It was not the necessity of having a word for the numeral "ten thousand," or of expressing the notion of a high indefinite number, that induced Turkish, Mongol, and Tungusian tribes to adopt the word *tuman*: it reached them in consequence of the reception, on their part, of the military organization and tactics launched in Persia. On another occasion I have explained the far-reaching influences emanating from Persia along this line, and the word *tuman* belongs to the same class. STEINGASS says, in his revised edition of Johnson's and Richardson's *Persian Dictionary*, that *tumān* refers to "districts into which a kingdom is divided, each being supposed to furnish ten thousand fighting men;"² that *tumān-dār* توماندār is the commander of a *tumān*, and *tumān-dārī* the command of a *tumān*. The same is expressed by RADLOFF in his *Turkish Dictionary* in assigning to Djagatai *tümān* the significance "military unit of ten thousand men." As regards the Mongols, we all have read our Marco Polo, who describes the decinal system on which the Mongol army was organized, and who says that "they call the corps of a hundred

¹ For this reason I should hesitate to identify the name of the Hiung-nu Khan T'ou-man 頭曼, who died in 209 B. C., with Turkish *tuman* ("ten thousand"), as has been suggested by E. BLOCHET (*Les inscriptions turques de l'Orkhon*, p. 7, note 3). The Chinese transcription *t'ou-man* may well correspond to a Turkish *tuman*; but the latter, after all, may have had another meaning.

² The same definition is given under *toman* by G. TEMPLE, in his *Glossary of Indian Terms*, p. 262 (London, 1897). It was the Moghul emperors who with their army organization transplanted the matter and the term into India.

thousand men a *tuc*, and that of ten thousand a *toman*" (ed. of YULE and CORDIER, Vol. I, p. 261).¹ Yule certainly is on the right track when he annotates that the decimal army-division made by Chinggis at an early period of his career was probably much older than his time, and that in fact we find the Myriarch and Chiliarch already in the Persian armies of Darius Hystaspes. According to HERODOTUS (VII, 81), the Persian army invading Greece under Xerxes was divided into tens, hundreds, thousands, and ten thousands, each of these divisions having its own leader, and the leaders being placed under the command of the Myriarch. Again, an exceptional position was taken by the Immortals, those picked Ten Thousand, who were all Persians, and were led by Hydarnes. When one of this corps died, his place was forthwith filled by another man, so that their number was never greater or less than ten thousand (VII, 83). At the root, the matter was deeply associated with the territorial organization of the Old-Persian monarchy and the military conscription based thereon. Here we face truly Iranian institutions; and it is self-evident that these, together with many others, were absorbed by the Turks of inner Asia, and subsequently by the imitators of the latter, the Mongols. Hence we are driven to the conclusion that the word *tuman*, as the name of a very ancient Iranian military institution, was handed on to Turks and Mongols by the Persians: it was not mathematical, but military necessity that forced this word on its route of migration and tended to preserve its life.

There are, accordingly, good philological and historical reasons for determining the position of the word *tuman* with a fair degree of exactness. It is Indo-European in its origin, and propagated in Tokharian, Persian, and Slavic. It is a Persian loan-word in Old-Turkish; a Turkish loan-word in Magyar, on the one hand, and in Mongol, on the other hand; and a Mongol loan-word in Niüči, Manchu, and other Tungusian languages. It has nothing to do with Chinese *wan*. On the contrary, wherever our word occurs in Chinese records, it is assuredly modelled after the Turkish-Mongol equivalent. T. WATERS² has already made this correct observation: "The word *tuman* in Turki means a myriad, but it has other meanings also, and it is found in other languages. Certain Chinese writers seem to have adopted it, and the word occurs frequently in their writings. It is found transcribed in several different ways [see above], and it is generally used in the sense of a myriad." B. LAUFER.

¹ In like manner Ibn Baṭṭa says that each squadron of the Khan was composed of ten thousand men, the chief of whom is styled *emīr tūmān* أمير طومان (ed. of DEFREMERY and SANGUINETTI, Vol. IV, p. 300). The military division of the Mongols into *tūmān* appears also from the chronicle of Sanaḥ Setsen (I. J. SCHMIDT's edition, pp. 175, 193, etc., 403); *tūmān*, of course, must not be conceived, with Schmidt, as a collective name of the Mongols.

² *Essays on the Chinese Language*, pp. 159, 160.

VIDAṄGA AND CUBEBS.

In their monumental work *Chau Ju-kua* (p. 224), HIRTH and ROCKHILL have acquainted us with the vegetal product derived from a creeper growing in Su-ki-tan on Java, and styled by Chao Ju-kua *pi-têng-k^{cie}* 萆澄茄. The translators of this author annotate that, according to the *Pên ts'ao kang mu*, this is a foreign word which occurs also in the transcription *p^{ci}-ling-k^{cie}* 毗陵茄. This name itself, however, is not explained by them. It is, first of all, important to note from which time these transcriptions come down. The earliest author cited in the *Pên ts'ao* as speaking of *pi-têng-k^{cie}* is Ch'ên Ts'ang-k'î 陳藏器, who lived during the first part of the eighth century, and who localizes the habitat of the plant on Sumatra (*Fu shi* 佛誓, Bhōja). Hence we are entitled to the inference that we face a transcription made in the style of the T'ang period; and, to all appearances, we are confronted with the reproduction of a Sanskrit word. The three elements of which the term is composed are well known from the nomenclature of the Chinese Buddhists: Chinese *pi* or *p^{ci}* renders Sanskrit *vi* or *bi*; the alternation of *têng* and *ling* allows us to presuppose an initial cerebral in Sanskrit with the choice of a cerebral *ḷ* in Prākṛit; the phonetic element *têng* 登 corresponds to ancient **taṇ* and **daṇ* (for instance, in *Mātaṅga* and *daṁshṭra*), while *ling* renders *lin*, *leṇ*, or *laṇ*; *k^{cie}* 茄 ("brinjal") has only the ancient phonetic value of *ga*, being the equivalent of 伽, the classifier 十 (in the same manner as in the first character *pi*) being chosen merely in view of the botanical significance of the whole term. Thus we obtain a Sanskrit form *viḍaṅga*, and I had indeed arrived at this restoration from a purely phonetic point of view, without knowing that such a Sanskrit word exists, or what it means. The transcription *pi-ling-k^{cie}* would justify the assumption of a Prākṛit form *viḷaṅga* or *viḷeṅga*, and in Bengālī we have *birāṅga* (in *Hindu-stānī* *babērāṇ*, *wawruṇ*; in *Puṣṭu* *bābraṇ*). An Arabic form *fileṅga* (see p. 285) likewise supports this view.

The word *viḍaṅga* is of ancient date: it occurs in the *Suṣṛuta-saṁhitā* and repeatedly in the *Bower Manuscript* (also in the form *bidāṅga*).¹ This plant has been identified with *Embelia ribes* (family *Myrsineae*), an immense climber abundant in the hilly parts of India from the Central Himalaya to Ceylon and Singapore, and occurring also in Burma. Its seeds are extensively

¹ HOERNLE, *The Bower Manuscript*, pp. 301, 320.

employed as an adulterant for black pepper.¹ W. ROXBURGH² states more specifically, "The natives of the hills in the vicinity of Silhet, where the plants grow abundantly, gather the little drupes, and when dry sell them to the small traders in black-pepper, who fraudulently mix them with that spice, which they so resemble as to render it almost impossible to distinguish them by sight, and they are somewhat spicy withal." The seeds of another species (*Embelia robusta*) are eaten by the Paharias of the Darjeeling district.³ This description answers well the pepper-like black seeds dried in the sun, as described by Chao Ju-kua. HIRTH and ROCKHILL, however, are perfectly correct in identifying Chao Ju-kua's *vidāṅga* growing on Java with *Piper cubeba* (family *Piperaceae*).⁴ It was evidently from Sumatra and Java that the term *vidāṅga* was introduced into China together with the cubebs. The Sanskrit term must have been transferred to this plant autochthonous to Java, because the products of the Indian and Javanese climbers were very similar in appearance and in their properties. The word doubtless belonged to the Kawi language. Other such instances are known where the Hindu settlers on Java named indigenous products of the island with Sanskrit words designating other species. An example of this kind is afforded by the *pin-kia* 頻伽 birds sent as tribute from Kalinga (訶陵, Java) to the Chinese Court in the year 813.⁵ The name *pin-kia* apparently is an abbreviation of Sanskrit *kalaviṅka*, written in Chinese 迦陵 (or 羅) 頻伽,⁶ exactly corresponding with

¹ WATT, *Dictionary of the Economic Products of India*, Vol. III, p. 242. *Embelia ribes* Burm. is stated to occur also in southern China, Hahang and the Lo-fou shan in Kuang-tung Province and Hongkong being given as localities (FORBES and HEMSLEY, *Journal of the Linnean Society*, Botany, Vol. XXVI, pp. 52, 63). According to the same authors, four other species of *Embelia* occur in southern China. It seems, however, that none of them is known by a Chinese name or is mentioned in the *Pén ts'ao* literature. *Embelia ribes* Burm. is found also in the Dutch East Indies (*Encyclopædie van Nederlandsch-Indië*, Vol. II, p. 218: "De vruchtjes en een uit deze bereid werkzaam beginsel [embelia-zuur] zijn in den laatsten tijd in Europa als voortreffelijk lintworm-middel in gebruik genomen"). As regards Burma, it is frequent in the tropical forests of Martaban and Upper Tenasserim (S. KURZ, *Forest Flora of British Burma*, Vol. II, p. 102).

² *Flora Indica*, p. 197 (Calcutta, 1874).

³ J. S. GAMBLE, *List of the Trees, Shrubs, and Large Climbers found in the Darjeeling District*, p. 53 (Calcutta, 1896).

⁴ This identification is due to D. HANBURY (*Science Papers*, p. 246). It is given after the latter by S. W. WILLIAMS (*Chinese Commercial Guide*, p. 117), F. P. SMITH (*Contributions toward the Materia Medica of China*, pp. 79, 83), and G. A. STUART (*Chinese Materia Medica*, p. 144, Shanghai, 1911).

⁵ *T'ang shu*, Ch. 222 B, p. 3.

⁶ *Fan yi ming i tsi*, p. 20^b (edition of Nanking). Compare EITEL, *Handbook of Chinese Buddhism*, p. 67.

the Tibetan rendering *ka-la-piñ-ka*, the Indian cuckoo extolled for its melodious voice.¹

In regard to the adjustment which has taken place in the Archipelago between the designations for *Embelia ribes* and *Piper cubeba*, we meet a very interesting parallel in the materia medica of the Arabs. These have been acquainted since the early middle ages with the product of the latter species, known to them under the name *kabāba* كبابة, whence our word "cubeb" is derived,² and discussed at length by Ibn al-Baiṭār (1197—1248).³ One of the

¹ It is not known to me whether the word *piñka* or *viñka* is recorded in the Kawi language of Java, but, judging from the Chinese notation of it in the T'ang Annals, I feel certain that it must have existed there with reference to a fine song-bird indigenous to Java. GROENEVELDT (*Notes on the Malay Archipelago*, in *Misc. Papers rel. to Indo-China*, Vol. I, p. 140) observed that "about these birds many an hypothesis is possible, but not one seems satisfactory." It is matter of regret that he has withheld from us his opinion on the subject. E. STRESEMANN, in a most interesting study on the historical development of our knowledge of birds of paradise (*Novitates Zoologicae*, Vol. XXI, London, 1914, pp. 13—24), has recently offered the suggestion that the Javanese *pin-kia* birds of the T'ang History possibly might have been birds of paradise. This supposition, however, is improbable. Birds of paradise do not sing at all, but are sought for only on account of their magnificent plumage. Moreover, birds of paradise do not live on Java. The centre of their habitat is New Guinea, where twenty-seven known species breed; while three inhabit the northern and eastern parts of Australia, and one the Moluccas (WALLACE, *The Malay Archipelago*, pp. 419—440). Accordingly, the earliest opportunity of the Javanese to become acquainted with birds of paradise was granted at the time when the people of Java reached the Moluccas; and this was not the case before the middle of the fourteenth century, when King Mājapāhit extended his power into those regions, as narrated in the Old-Javanese poem *Nāgarakrētāgama* of the year 1365 (translated by H. KERN, *De Indische Gids*, Vol. XXV, 1903, pp. 341—360). As admitted by STRESEMANN in another article (*Novitates Zoologicae*, Vol. XXI, 1914, p. 39), it was at that time that the cassowary of Ceram was first introduced into Java (and it is Stresemann's particular merit that he rejected the old error that the original home of the cassowary, known to the Chinese as *huo chi* 火鷄 [see GROENEVELDT, *l. c.*, pp. 192, 193, 198, 253, 262] was on Sumatra, Java, or Banda); but the same admission must hold good for birds of paradise. Regarding the possibility of the importation of the dried skins for these birds into China, compare F. W. K. MÜLLER in *T'oung Pao*, Vol. IV, 1893, pp. 82—83 (an article not consulted by Stresemann, nor did he utilize YULE's important contribution to the subject in his *Hobson-Jobson*, p. 95), with comments by HIRTH (*T'oung Pao*, Vol. V, 1894, pp. 390—391) and GROENEVELDT (*ibid.*, Vol. VII, 1896, p. 114). This subject would be deserving of a renewed and more profound investigation: the objections raised by Hirth and Groeneveldt to Müller's thesis are by no means convincing to me, and at all events will not terminate the discussion.

² YULE and BURNELL, *Hobson-Jobson*, p. 277. The introduction of cubebs into our pharmacopœia is due to the Arabic physicians of the middle ages.

³ L. LECLERC, *Traité des simples*, Vol. III, p. 138.

earliest authors cited by him, Ibn al-Heitsem, discriminates between two varieties, a larger and a smaller one, the larger one being *habb al-a'rus* حبّ العروس, the smaller one *falinja* or *falenja* فلنجة. The latter kind is treated by Ibn al-Baitār, who has arranged his material in alphabetical order, under a separate entry,¹ where LECLERC, the excellent translator of the Arabic work, annotates, "Nous ignorons quelle est cette graine. Ce n'est pas le cubèbe ni la muscade. C'est la graine d'une plante qui croît dans l'Inde et atteint la hauteur d'environ une coudée," etc. Both the description given in the text and the very name *falenja* leave no room for doubt that the vegetal product in question is the *viḍaṅga* of India. Arabic *falenja* is merely a reproduction of this word, and the older Arabic articulation doubtless was *filenga* or *filanga*, which is in perfect harmony with the Chinese transcription *pi-lin* (leñ)-ga.²

Hirth and Rockhill err in restricting the occurrence of *Piper cubeba* to Java only.³ According to WATT,⁴ the plant is a native of Java and the Moluccas, and is cultivated to a small extent in India (most probably due to importation from the Archipelago). The well-informed *Encyclopædie van Nederlandsch-Indië*⁵ states that the creeper occurs wild in Java and Borneo, and is cultivated throughout the Dutch East Indies, being exported in large quantities to Holland, where it receives its function in the pharmacopœia.⁶ Ch'ên Ts'ang-k'i, as stated, refers the plant to Sumatra; and whether it grows there or not, its ready-made product seems to have first reached the Chinese from Sumatra rather than from Java.⁷ It is interesting to note that at the same time cubebs had entered India; for Ibn-Khordādbēh, who wrote between

¹ LECLERC, *L. c.*, Vol. III, p. 40, No. 1695.

² In view of the Arabic importation of both cubebs and *viḍaṅga* from India and of cubebs also from the Archipelago and China (see below), these two products ought to have been included by G. FERRAND (*Relations de voyages et textes géographiques arabes, persans et turks relatifs à l'Extrême-Orient*, Vol. I, p. 234) in his list of Indian and East-Asiatic products assembled from the great work of Ibn al-Baitār. It is gratifying, at any rate, that Ferrand calls the special attention of "indianistes, sinologues et indo-sinologues" to the translation of Leclerc, which "is not as well known as it ought to be." The writer has ploughed through Leclerc's work for the last fifteen years, and has always found it a most trustworthy, helpful, and inspiring companion.

³ They do not refer to Marco Polo, who mentions cubebs among the products of Java (ed. of YULE and CORDIER, Vol. II, p. 272).

⁴ *L. c.*, Vol. VI, pt. 1, p. 257.

⁵ Vol. II, p. 255.

⁶ The Dutch name *staartpeper* ("tail-pepper") presents a literal translation of Malay *lāda barekor*, or *mariča buntut*.

⁷ According to the *Encycl. Brit.* (Vol. VII, p. 607), *Piper cubeba* is indigenous to South Borneo, Sumatra, Prince of Wales Island, and Java.

844 and 848, enumerates them among the export-articles of India.¹ Li Sün 李珣, the author of the *Hai yao pên ts'ao* 海藥本草 in the second half of the eighth century, quotes a work *Kuang chou ki* 廣州記 ("Records of Kuang-tung") as saying that cubebs grow in all maritime countries and are identical with tender black pepper.² Li Shi-chên comments that they are found in Hai-nan and all foreign countries (scil., of the south?).³ Of greater importance is the fact that under the Sung dynasty the plant was cultivated in the soil of Kuang-tung Province, as reported by Su Sung 蘇頌 in his *T'u king pên ts'ao* 圖經本草.⁴ In Persian, in Hindustānī, Bengālī, and other Indian languages, cubebs are still called *kabāb-čīnī* کباب چینی; that is, *kabāb* from China.⁵

GARCIA DA ORTA⁶ supplies us with some information on this point, which is interesting enough to be cited in extenso: "Tametsi cubebis raro in Europa utamur, nisi in compositionibus: attamen apud Indos magnus earum in vino maceratarum est usus ad excitandam venerem; tum etiam in Iaoa [Java] ad excalfaciendum ventriculum.⁷ Appellatur hic fructus ab Arabibus medicis Cubebe et Quabeb; a vulgo Quabebechini: in Iaoa, ubi frequens nascitur, Cumuc;⁸

¹ G. FERRAND, *l. c.*, Vol. I, p. 31.

² 澄茄生諸海國乃嫩胡椒也 (according to another reading, "the tenderest of black pepper" 胡椒之嫩者).

³ 海南諸番皆有之. — Ibn Rosteh, who wrote about 903, mentions cubebs as products of the island Salāhat in the Archipelago; Masūdī, as products of the kingdom of the Mahārāja (G. FERRAND, *l. c.*, Vol. I, pp. 79, 99, 110).

⁴ Finally the word *pi-téng* 畢澄 was transferred to a kind of wild pepper 山胡椒 growing in Kuang-si, as stated in the *Chi wu ming shi t'u k'ao* 植物名實圖考 (Ch. 25, p. 69) of 1838 (see BRETSCHNEIDER, *Bot. Sin.*, pt. 1, p. 72). This work contains also an illustration of the plant; so does the *Chéng lei pên ts'ao* (Ch. 9, fol. 44), where it is entitled "*pi-téng-k'ie* of Kuang-chou."

⁵ See YULE in his edition of *Marco Polo*, Vol. II, p. 391.

⁶ Latinized ab Horto. Garcia went to India in 1534 as physician of the Portuguese Viceroy, and during thirty years made a most thorough study of Indian drugs, products, and medicine. The results of his labor were published at Goa, 1563, under the title "Coloquios dos simples, e drogas e cousas medicinaes, e assi dalguas frutas achadas nella India Oriental onde se tratam algumas cousas tocantes a medicina, pratica, e outras cousas boas para saber." Only six copies of this original edition are said to be in existence. I quote from the Latin edition of C. CLUSIUS (p. 111), published at Antwerp in 1567.

⁷ For the warming of the stomach. ACOSTA, who wrote a treatise on the drugs of India in 1578, as quoted by Yule, says that the Indian physicians use cubebs as cordials for the stomach.

⁸ Javanese *kumukus*; Malayan *temukus*.

a reliquis Indis, praeterquam in Malayo, Cubabchini. Non est autem sortitus hanc appellationem, quod in China nascatur, quandoquidem ex Cunda¹ et Iaoa, ubi plurimus est, in Chinam perferatur: sed quoniam Chineses, qui Oceanum Indicum navigabant, hunc fructum, quem in iam enumeratis insulis emerant, cum aliis mercibus in alios maris Indici portus et emporia deferebant.” Garcia, accordingly, regarded the Chinese only as the importers of the product, not as its growers; and it may be admitted that the bulk of the Chinese importation into India traced its origin to the Archipelago. Garcia, however, never visited China; and we have no reason to question the accuracy of the Chinese account claiming indigenous cultivation, which is amply confirmed by modern observers. In 1789 LOUREIRO, in his *Flora Cochinchinensis*, pointed it out as being cultivated in Indo-China.² F. P. SMITH refers to the probable introduction of the species from Sumatra or Java into the province of Kuang-tung. FORBES and HEMSLEY,³ in their comprehensive work on the systematic botany of the East, state in regard to the species (named by them *Litsea cubeba*), “We have only seen the fruit as it appears in commerce, and it is similar to that of the ‘mountain pepper’ of Central China (*Litsea pungens*, Hemsl.), yet evidently not the same, nor even a cultivated variety of it.”

In the Tibetan-Chinese List of Drugs *Fan Han yao ming* 番漢藥名⁴ we meet the Sanskrit *viḍaṅga* under No. 117 in the Tibetan transcription *byi-taṅka* or *byi-taṅga*,⁵ explained through Chinese *man-king-tse* 曼荆子 (*Vitex trifolia*),⁶ a plant growing abundantly in northern China, and furnishing a black berry which is used in medicine. Hence the adjustment with *viḍaṅga* was effected: indeed, Ch’ên Ts’ang-k’i remarks that the *pi-têng-k’ie* (*viḍaṅga*), in their appearance, resemble the seeds of the *wu-t’ung* 梧桐 (*Sterculia platanifolia*) and those of the *man-king*. On the other hand, we encounter in the same List of Drugs (No. 192) the Chinese term *pi-têng-k’ie*

¹ Identical with Cunda, Sunda (see YULE and BURNELL, *Hobson-Jobson*, p. 868).

² BRETSCHNEIDER, *Early European Researches into the Flora of China*, p. 171.

³ *Journal of the Linnean Society* (sect. Botany), Vol. XXVI, p. 380.

⁴ See for the present BRETSCHNEIDER, *Bot. Sin.*, pt. 1, p. 104. I hope to give shortly a bibliographical study of this work, which would be too long to insert here. My quotations from it refer to a critical edition (in manuscript) prepared by me. The substance of the work is embodied in A. POZDŇAYEV’S Учебникъ тибетской медицины (Vol. I, pp. 247—301). A very poor and careless edition of it was published in 1913 by HÜBOTTER (*Beiträge zur Kenntnis der chin. sowie der tib-mong. Pharmakologie*).

⁵ Likewise in Mongol *byidaṅga* (the addition of the letter *y*, as in Tibetan, denoting palatalized *b'*). The word *viḍaṅga* is not contained in the *Mahāvīyutpatti*, and it is not known to me how old the Tibetan transcription is.

⁶ BRETSCHNEIDER, *Bot. Sin.*, pt. 2, p. 357; STUART, *Chinese Materia Medica*, p. 457.

碧澄¹ 茄, with a Tibetan equivalent *rin-po-č'e myag*. The first element of this compound means "precious, valuable;" the word *myag*, not recorded in our Tibetan dictionaries, still awaits explanation. It was not known heretofore that the seeds of *Piper cubeba* or *Embelia ribes* were employed in Lamaist pharmacology, but to all appearances this seems to have been (or still to be) the case.

The previous notes bear out the fact that it is not always sufficient to define pharmacological terms of East-Asiatic languages merely by way of determination of the specimens to which the technical terms at present relate, but that philological and historical researches are indispensable in order to reach a full understanding of the real facts. New associations of ideas were formed when new products turned up and crossed the experience of an earlier allied substance; new adaptations of terms were brought about, rallying most diverse species under the same flag.

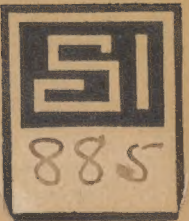
B. LAUFER.

¹ If S. W. Williams and his successors transcribed this character *ching* and *ch'eng*, they were, as far as the modern language is concerned, quite correct; for the Tibetan-Chinese work, in which the Chinese names are transcribed in Tibetan letters for the benefit of the Tibetans trading with Chinese in drugs, renders the character in question by *č'en*.

SMITHSONIAN LIBRARIES



3 9088 01785 3367



495

237

IMPRIMERIE CI-DEVANT E. J. BRILL, LEIDE.